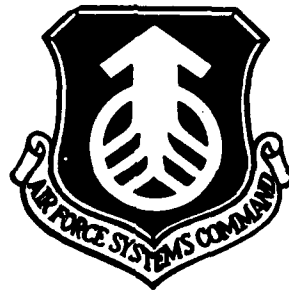


DTIC FILE COPY

FOREIGN TECHNOLOGY DIVISION

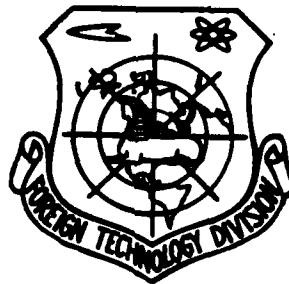


A COMPOSITION FOR THE FILLING OF GAS-DISCHARGE TUBES

by

G.I. Kromskiy, A.A. Mak, et al.

AD-A222 818



DTIC
ELECTE
JUN 19 1990
S B D

Approved for public release;
Distribution unlimited.

90 06 18 020

HUMAN TRANSLATION

FTD-ID(RS)T-0434-90

25 April 1990

MICROFICHE NR: FTD-90-C-000467

A COMPOSITION FOR THE FILLING OF GAS-DISCHARGE TUBES

By: G.I. Kromskiy, A.A. Mak, et al.

English pages: 1

Source: USSR Patent Nr. 431595, 29 August 1972,
pp. 1

Country of origin: USSR

Translated by: John A. Miller

Requester: FTD/TTTD/Jacobsen

Approved for public release; Distribution unlimited.

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

THIS TRANSLATION IS A RENDITION OF THE ORIGINAL FOREIGN TEXT WITHOUT ANY ANALYTICAL OR EDITORIAL COMMENT. STATEMENTS OR THEORIES ADVOCATED OR IMPLIED ARE THOSE OF THE SOURCE AND DO NOT NECESSARILY REFLECT THE POSITION OR OPINION OF THE FOREIGN TECHNOLOGY DIVISION.

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WPAFB, OHIO.

U. S. BOARD ON GEOGRAPHIC NAMES transliteration SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Й й	<i>Й й</i>	Y, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	'
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

*ye initially, after vowels, and after Ъ, Ь; e elsewhere.
When written as ѣ in Russian, transliterate as yě or ě.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	\sinh^{-1}
cos	cos	ch	cosh	arc ch	\cosh^{-1}
tg	tan	th	tanh	arc th	\tanh^{-1}
ctg	cot	cth	coth	arc cth	\coth^{-1}
sec	sec	sch	sech	arc sch	sech^{-1}
cosec	csc	csch	csch	arc csch	csch^{-1}

Russian English

rot	curl
lg	log

GRAPHICS DISCLAIMER

All figures, graphics, tables, equations, etc.
merged into this translation were extracted
from the best quality copy available.

A COMPOSITION FOR THE FILLING OF GAS-DISCHARGE TUBES

G. I. Kromskiy, A. A. Mak, Ye. T. Makhrov, A. A. Shcherbakov

The invention relates to illumination engineering and can be used for the optical pumping of the active medium of quantum generators.

There is known a composition for the filling of gas-discharge tubes which contains vapors of alkali metal and inert gas (e.g., sodium and xenon). Low efficiency is a drawback in tubes with this filler.

The proposed composition for the filling of gas-discharge tubes contains vapors of alkali metal and gaseous krypton. The greatest effect is obtained with the use of a composition which contains 0.1 atm of vapors of sodium and 50 atm of krypton. The efficiency of a tube with this composition exceeds that of the xenon tube by a factor of six.

Subject of the invention

A composition for the filling of gas-discharge tubes which contains an inert medium and vapors of alkali metal is characterized by fact that for the purpose of increasing the efficiency in the tubes as the inert medium is selected krypton at a pressure 50 atm, while the vapors of the alkali metal, in particular sodium, are 0.1 atm.

DISTRIBUTION LIST

DISTRIBUTION DIRECT TO RECIPIENT

<u>ORGANIZATION</u>	<u>MICROFICHE</u>
CS09 BALLISTIC RES LAB	1
CS10 R&T LABS/AVEADCOM	1
CS13 ARRADCOM	1
CS35 AVRADCOM/TSAROOM	1
CS39 TRASANA	1
Q591 FSIC	4
Q619 MSIC REDSTONE	1
Q008 NTIC	1
E053 HQ USAF/INET	1
E404 AEDC/DOF	1
E408 AFWL	1
E410 AD/IND	1
F429 SD/IND	1
P005 DOE/ISA/DDI	1
P050 CIA/OCR/ADD/SD	2
AFTT/LDE	1
NOIC/OIC-9	1
OCV	1
MIA/PHS	1
LIVL/CODE L-309	1
NASA/NT-44	1
NSA/T513/TDL	2
ASD/FTD/TTIA	1
FSL	1